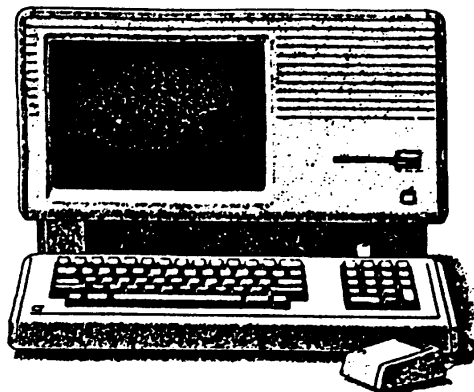


Document# 31

Apple Lisa Information



FILE NAME

Lisa Product Introduction Plan

DISK #

COMMENTS

Apple Doc

David T. Craig
736 Edgewater, Wichita, Kansas 67230
(316) 733-0914



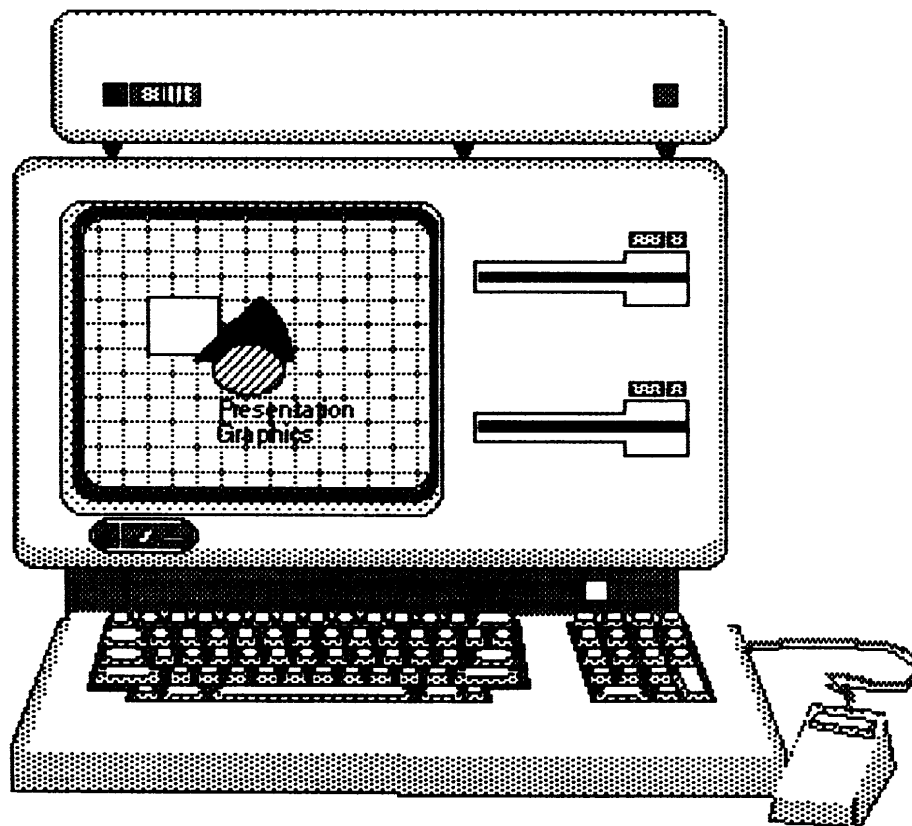
Lisa





Apple Lisa Personal Computer 1983 to 1985

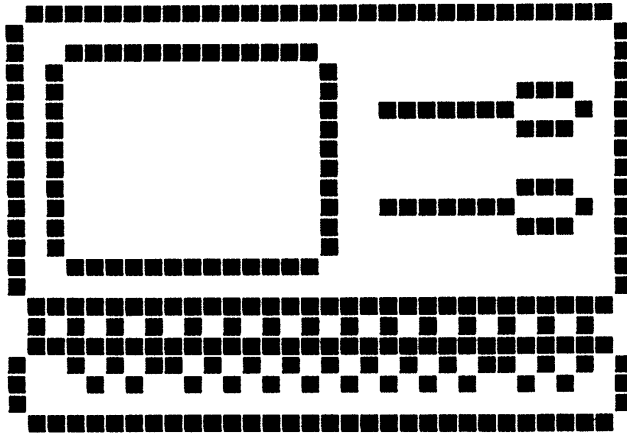
Product Intro Plan (14 Jan 83)



David T. Craig - 736 Edgewater, Wichita, Kansas 67230 - (316) 733-0914

Lisa Product Introduction Plan

Plaintiff(s) 350 Exhibit No. for idem.
Defendant(s) _____
Deposition of Marc Volz, History
Date 8-21-86



Lisa

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 **apple computer**
31200102

"002.PICT" 200 KB 2000-03-07 dpi: 72h x 72v pix: 2842h x 4042v



PRODUCT INTRODUCTION PLAN

JANUARY 14, 1983

APPROVALS:

NAME:

SIGNATURE:

Joy McCully
POS Office Market Mgr.

Handwritten signature of Joy McCully in cursive script, written over a horizontal line.

Ellen Mold
POS Marketing Support Mgr.

Handwritten signature of Ellen Mold in cursive script, written over a horizontal line.

Barry Smith
POS Software Prod. Mktg.

Handwritten signature of Barry Smith in cursive script, written over a horizontal line.

Rick Torpene
POS Hardware Prod. Mktg.

Handwritten signature of Rick Torpene in cursive script, written over a horizontal line.

Deme Clainos
POS Division Mktg. Dir.

Handwritten signature of Deme Clainos in cursive script, written over a horizontal line.

John Couch
POS Division Gen. Mgr.

Handwritten signature of John Couch in cursive script, written over a horizontal line.

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A horizontal line for a signature, currently empty.

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31200103



DOMESTIC PRODUCT INTRODUCTION PLAN

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1. Executive Summary

January 19, 1983, marks the end of a long development effort to bring Lisa to market, but also the beginning of a new era in personal computing. On that date at the annual shareholder's meeting, Lisa will be officially announced with simultaneous announcements in other apple countries throughout the world. In conjunction with the announcement of the Apple IIe, Lisa will be presented as the first truly easy to learn and use, Personal Office Computer System for under \$10,000! This will again reinforce Apple Computer as the technological leader in the growing Personal Computer arena.

Just as the Apple II first established Apple as the leader with an innovative and flexible solution based on hardware technology, Lisa will establish the standard for software technology of the 80s.

The following Product Introduction Plan outlines in detail the product, the introduction scenario, the marketing and support strategies and open issues related to launching the most comprehensive product offering Apple has ever attempted.

A quick summary of the objectives are:

- Announce, launch and ship the Lisa Personal Office System as a bundled system for \$9995;
 - A 1 MB system with Keyboard and Mouse
 - A 5 MB Profile hard disk system
- Professional application tools:
 - LisaCalc - spread sheet
 - LisaList - personal database
 - LisaProject - resource scheduling
 - LisaWrite - text processing
 - LisaGraph - plotting
 - LisaDraw - graphics editor
- Announce, launch and ship all supporting software, peripherals and accessories
- Sell at least 10,000 units in the last half of FY 83 and 42,000 units in FY 84
- Meet Corporate Return on Sales goals in FY 84
- Establish Lisa as THE Personal Office System of choice
- Provide complete support for our customers through innovative, cost effective programs

This Product Introduction Plan is targeted only to the domestic introduction. POS Europe and POS International have issued an extensive PIP for Europe (November, 1982) addressing the issues related to International rollout. PIPs for the individual countries (including the major intercontinental markets) are currently under development.

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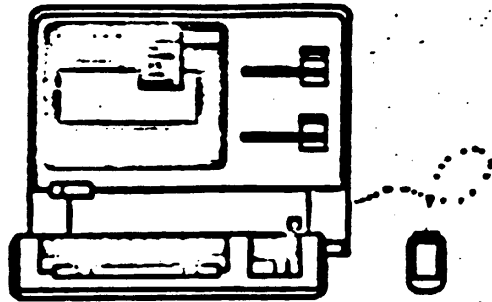
2. Product Strategy

2.1 Product Summary

The following section describes the features of Lisa software, hardware, peripherals, and accessories that will be announced on January 19, 1983.

Lisa Bundle

The Lisa concept is most apparent when a full set of applications with a common user interface and integration between tools can be utilized. Thus, we will be encouraging the use of the applications through an aggressively priced stand alone package that includes all of the most common tools needed by information professionals.



Lisa will only be available in the beginning as a bundle with the following:

- 1 MB Lisa microframe with keyboard and mouse
- 5 MB Profile hard disk system
- 6 Professional Series Applications
 - LisaCalc - spread sheet
 - LisaList - personal database
 - LisaProject - project scheduling
 - LisaWrite - word processing
 - LisaGraph - plotting
 - LisaDraw - graphics editor

In addition, there are communication applications, modems, printers, and other accessories that can be added to meet the specialized needs of the user. Detailed data sheets of each of the products are included as Attachment X at the end of this document.

SOFTWARE

Lisa's User Interface and applications are the heart of the product line. It must be seen to be believed!

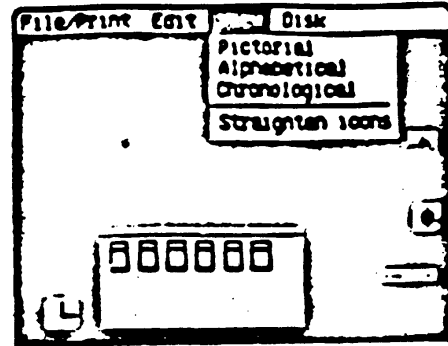
All applications use a common filing and printing system. We also provide an interactive manual, LisaGuide, to introduce the user to Lisa concepts. Limited integration will allow the user to transfer LisaCalc data to LisaGraph and LisaWrite documents; and graphs from LisaGraph or LisaProject to LisaDraw, with full integration to follow. All applications use a software protection scheme which allows users to make unlimited copies of tools for one given machine from a master. The master may be used on any Lisa.

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Lisa Desktop Manager

This is what the user will see first and is the closest thing to what is considered a more traditional 'operating system' except that in Lisa it is a shell on top of the Lisa OS, window manager, and printing software



LisaDesk uses familiar objects on the desktop, called icons, to indicate the document, folder, or disk the user may select to move, copy, file or throw in the waste basket. The user may also define the characteristics of a standard document and then create a stationery pad. The new document, when 'torn' from the pad, is a template. When activated, it will automatically start the application necessary to begin work in that letter, memo, worksheet, list, chart, graph, or drawing. LisaDesk will automatically 'time stamp' the date and time of creation and last modification. Disk or folder catalogs can be displayed as pictorial 'icons' or in tabular form organized in alphabetical or chronological order.

The printing software supports the Apple Dot Matrix and Daisy Wheel Printers. Both are capable of printing text AND graphics - even the letter quality printer with Apple's unique 130 character daisy wheel!

The Dot Matrix printer can print text and graphics (including all symbols) in both high and low resolution and in landscape (horizontal) or portrait (vertical) modes. The user can specify several type styles and sizes, printer configurations, paper sizes and types, and fixed or proportional space all from menus without having to bother with switches inside the printer. Very large charts, such as critical path diagrams can be printed up to 32 square feet!

Most important is the visual fidelity maintained throughout. What appears on the screen is exactly what will be printed. All page breaks can be previewed and there are no surprises when the final draft is done!

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LisaCalc

A powerful electronic spreadsheet and financial modeling tool that is essentially the same as Visicalc™, plus:
A superior user interface using graphics and mouse.

16 digit Precision that conforms to the IEEE standard for extended double precision.
Variable width columns.

Choice of several fixed pitch fonts.

Formulas and templates that can be protected against accidental destruction.

Relational operators and IF, THEN, ELSE functions.

Date and calendar arithmetic.

Compound interest and annuity factor functions.

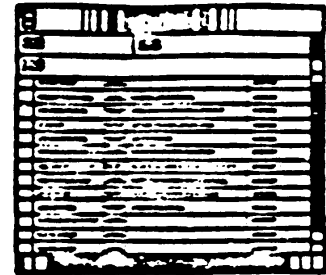
Block replication.

Missing Data indications.

Automatic calculation until convergence is reached.

Formulas can be printed along with values.

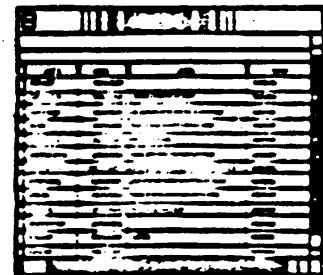
Printing in landscape mode with 15 pitch font gives 132 columns on one page!



LisaCalc data can be transferred to other Lisacalc models, to LisaGraph for plotting the data, or to Lisawrite for inclusion into a report or a memo. Because the mouse provides quick control of the cursor and screen windows, complex models can be created quickly and used to provide effective 'what if' analysis. Using the small 15 pitch font, several columns of data can be visible at one time for easy manipulation.

LisaList

A personal database that helps you create and maintain all types of lists. Preparing special reports from a master list is easy through a simple query by example instead of a special command language. By making specific columns visible, reports contain only the information needed.



Special field types can be specified to be: text, numeric, phone, zip, social security, date, time, or money. All data entered is automatically checked against the field type specified to minimize incorrect information. Since the data on a database can often be very important, a file recovery mechanism can be used to rebuild a file lost due to power failures or faulty media.

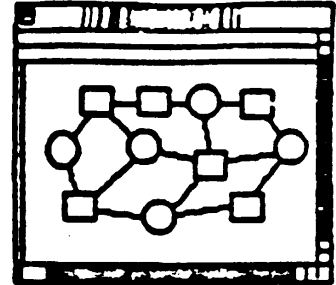
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3120010S

LisaProject

A visual project scheduling tool that will be to project managers, or anyone else who must deal with time and resource allocation, what Visicalc™ was to financial managers.

LisaProject uses the Lisa user interface to input graphic data in the form of a PERT chart to calculate the start and finish dates of up to 1000 inter-related tasks that comprise a project. In the same way that numerical models could be implemented quickly without programming knowledge and 'what if' games could be played on Visicalc™, complex projects can be created, updated and changes simulated in 'what if' scenarios on LisaProject.

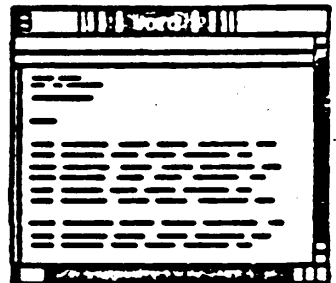


Critical paths are instantly shown by highlighted lines. The user can even zoom in or out to view the entire project or one small part. Milestones are supported and the scheduling algorithm takes into account holidays and parallel or redundant resources. The user can view the data alternatively as a resource chart or organized by task. Critical resources and float times are highlighted for easy identification and tracking.

LisaProject charts can be moved to LisaDraw for adding annotations or other customizing.

LisaWrite

One of the most advanced text processors available on personal computers. Normal document editing is much easier with Lisa. The mouse allows inserting, deleting, and moving of text to be as easy as pointing.



Formatting page layout is just as easy with several fonts and type styles, fixed and proportional space, bolding, italics, underlining, sub and superscripting, left, center, right and full justification, single, 1.5, double and triple line spacing, single or multiline headers and footers, automatic page numbering, automatic or manual page breaks, protection of text blocks from page breaks, layout aids in inches or metric rulers, and up to eight split windows in horizontal and vertical directions.

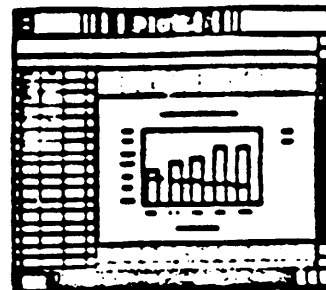
Search and replace is supported on any length string with single or global replacement, wild card search, and you can choose to match or ignore upper/lower case.

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31200109

LisaGraph

Complex data can be easily represented as a clear, concise chart for better communication. Data can be plotted as a bar, line, mixed bar and line, scatter, or pie chart. Data moved from LisaCalc is quickly plotted to show trends, and then the chart can be moved to LisaDraw to customize the drawing. For example, move a pie segment and add a drop shadow.

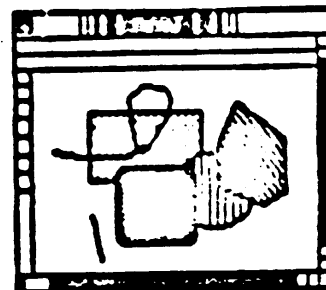


Formating all types of graphs is easy; it does not require a special graphics language. Data can be directly entered and the result is instantly plotted. Default titles are easily changed. All fonts are supported for typeset quality. Several chart sizes are available from quarter page to full page. Up to 2000 points can be plotted with up to eight y-values per x-value.

In addition to automatic plotting of data, axis legends are also scaled automatically. Legends can be manually scaled for unusual scales. View windows of data and chart areas can be controlled for easy viewing of both depending on complexity.

LisaDraw

A unique graphics presentation tool for everyone. Flow charts, technical diagrams, maps, pictures and symbols can be created quickly and easily. A picture IS worth a thousand words, and LisaDraw provides a very flexible tool to combine rectangles, lines, circles, curves, polygons and text to create anything one can imagine.



Just as a painter combines colors on a palette to apply to the canvas, LisaDraw provides a wealth of line styles, fill patterns, shapes and text styles as well as layout aids like inch and metric rulers, measure indications, auto grid paper, and alignment commands to create presentation quality drawings without learning a special graphics language. Objects can be grouped, aligned, stretched, stacked on on top of another, and duplicated all with the ease of pointing with the mouse.

Templates can be created with special symbols to speed standard or commonly used forms such as flow charts or schematic drawings.

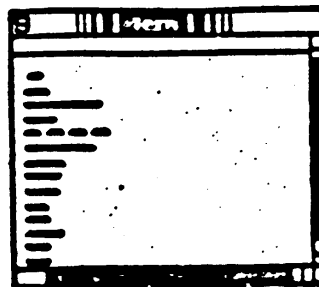
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31200110

DATABASES

LisaTerminal

Access to remote databases like Dow Jones™, the Source™, or a company's mainframe computers can be accomplished within the Lisa environment through LisaTerminal, a VT100 emulator. It can also operate as a simple 'dumb terminal' to any standard asynchronous RS-232c connection. With a DC Hayes Smartmodem™, the user can call a number automatically and load data into a file to be transferred later, stored, or thrown away. Data can also be cut into or cut of a LisaTerminal window into Lisakrite for inclusion in a report.



3270 Terminal

A standalone terminal emulator for the IBM world will be available first with a built-in bisynch driver. This will allow the largest installed base of IBM terminal equipment to be replaced with a Lisa!

NETWORK

Appletalk

Apple has developed a local area network that will play a central role in allowing Lisa to penetrate the Office of the Future. It will allow Lisas and all other Apple mainframe products to be linked together for fast and efficient communication, resource sharing and common access to databases. It has the advantage of being very low cost while maintaining Apple quality, reliability, ease of installation, and safety. This will be available late '83.

SOFTWARE DEVELOPMENT

LisaWorkshop

The Lisa software development project required over 200 man-years of effort. Most of that effort was toward laying the foundation for the applications and that required extensions to Pascal and an sophisticated development environment, in fact, one of best available on a personal computer. All of the software for Lisa (except the very fast graphics routines) was developed in Pascal. A Lisa Toolkit will soon be available late '83 to take advantage of the software libraries created to make Lisa possible.

The Pascal compiler directly to 68000 machine code, and the editor has a Lisa style interface.

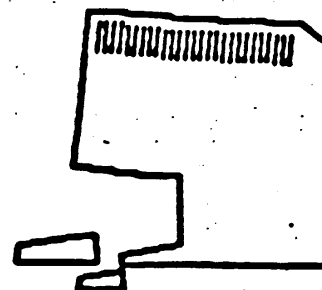
Other languages available are BASIC-PLUS, COBOL (Full GSA High Level), and with FORTRAN, and Smalltalk (a research language) available later.

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Lisa

With its attractive office styling, silent operation, and modular design, the Lisa system blends naturally into any office environment. The system console, housing a 12" display, two disk drives, and system electronics, is compact enough to fit comfortably on a desk, a typing return, or credenza. The separate keyboard and mouse allow any user to take advantage of the naturally harmonious relationship between eyes, hands, and the various system components.



The system console contains a 12" diagonal, high resolution, low-glare display screen. The use of a high efficiency phosphor to display black characters and graphics on a white background, provides the most ergonomic and pleasing image to the eye since there is no strong contrast change from the image we are used to seeing on paper. The screen is a bit-mapped image of 364 lines of 720 dots each. This makes possible the high resolution graphics, variable font sizes, proportional space text, and the visual fidelity with the print capability. Contrast is software controlled to provide a long phosphor life.

File storage is provided by two high density mini-floppy style disk drives and a Profile 5 MB hard disk subsystem. The Profile can be used to store all system software, applications and user documents. The internal floppy disk storage capacity is an industry high of 860,000 characters (formatted) each. Consistent with the overall philosophy of a truly easy to use system, the diskettes are automatically loaded and ejected under software control in order to ensure directories are consistent before release.

Processing is accomplished by the highly acclaimed 32-bit MC68000. The system includes a full Megabyte of memory which is controlled by a very flexible memory management unit. Built-in diagnostics establish a high confidence level at start-up time and the internal modularity provide easy serviceability.

All input/output functions are handled by three microprocessors operating on the MC68000 shared bus. Serial communication capabilities are provided through two RS-232C ports accessible on the rear panel. One port has full modem capability including auto-dial, auto-answer. A built-in parallel port is used to interface directly to the Profile hard disk.

The keyboard has been designed to be comfortable and efficient. In addition to the standard typewriter layout, a numeric keypad is provided for fast data entry. All 73 keys can be software programmed for special functions or to provide special characters or symbols. The electronics have n-key rollover for the speed fast typists require. Help cards are attached to the bottom (Attachment 7)

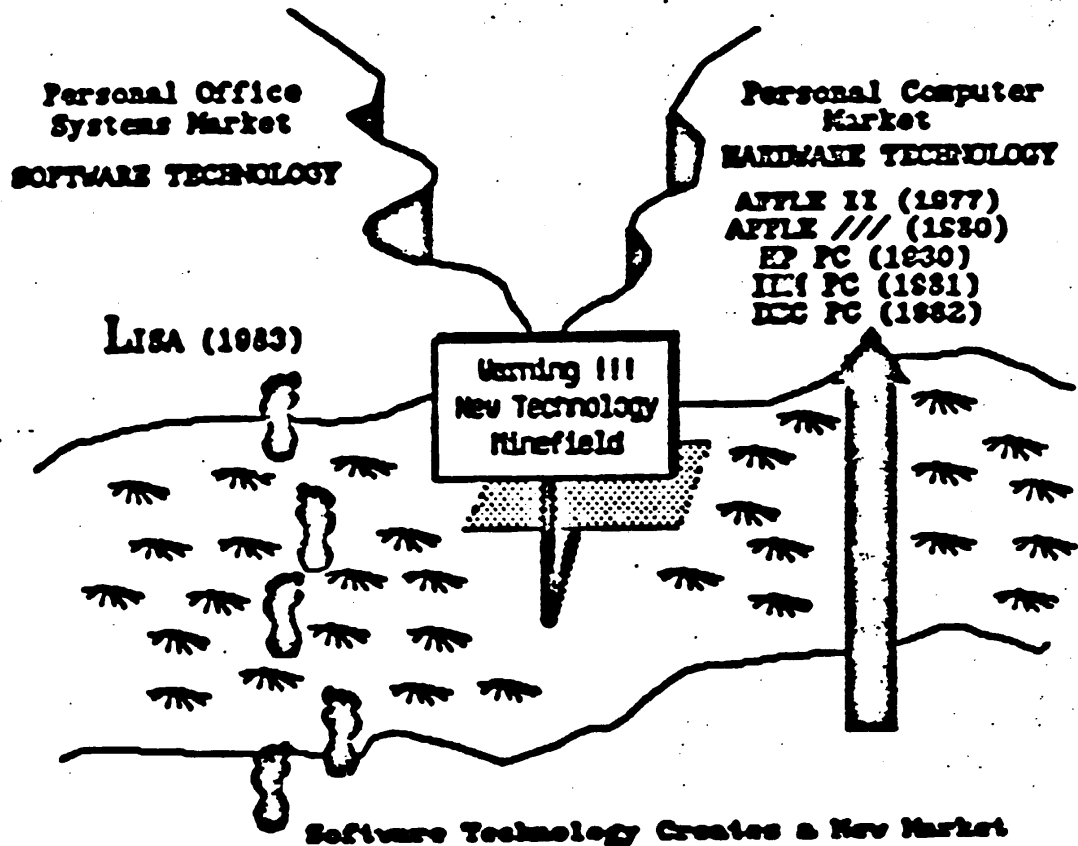
The on/off switch is even software controlled to prevent the user from turning off the system accidentally before the documents were properly stored away. This is truly user friendly; it to protect the users from themselves!

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THE LISA CONCEPT

In order to understand what makes Lisa different from other personal computers, we need to understand what Apple did back in 1976. The personal computer market was in its infancy and the Apple II was a very clever, relatively inexpensive computer with lots of slots to use the system for anything. And that is exactly what happened. Add-on producers developed everything under the sun for the Apple II, and software was developed first for the Apple II and then maybe for others. This gave Apple a powerful leverage point.



With the introduction of 'Big Blue' and other corporate heavyweights, the PC market has grown considerably. However, for Apple to continue growing at the rate we are accustomed to, we decided to go after the relatively untapped market of the information professional through personal office systems.

Although data processing has been around for decades and display word processors have been with us since 1971, the total installed base is but a few hundred thousand. If Apple were to be successful where others have failed, we needed to develop a new technology in software to create that new market.

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The Lisa Pyramid

As with all new products, it is difficult to explain why it is better than what existed before. Lisa is no different. In fact, we have found in numerous sneak previews Lisa is very difficult to describe. Unless one sees the system, it is almost impossible to appreciate what Lisa represents. One tool we have found effective in organizing the many issues is what we call the Lisa Pyramid. The next figure is a diagram that should be referred to often in this discussion.

The top part of the pyramid represents the solutions required by the target customer in an office, the information professional. The generic applications are all tools which can be used by almost anyone in an office. They are not canned vertical applications geared for a specific kind of worker like an insurance agent. They are the extension of the idea behind the original Visicalc[®]. It was a 'mental bicycle' which extended the capabilities of the user. Visicalc[®] was the first computer tool to achieve even remotely 'mass market' appeal among managers and professionals. It is no longer possible for a company such as Apple to introduce a computer with no software and be successful. Even IBM with all the resources of the largest computer company in the world had to use a 'standard' operating system to take advantage of the second largest base of software. Thus, it was imperative that at introduction we supply a full complement of TOOLS. In addition it is important to encourage the development of vertical market applications by third party vendors. That requires us to open up the system as was done on the Apple II and even to provide a LisaToolkit for those vendors who will be able to leverage our development effort and use our user interface subroutines. In other words, we will be providing the equivalent of 'slots' in a software technology instead of slots that helped the Apple II. In addition, networks and databases are necessary in order to provide access to other databases and to facilitate the communication needs of the office professional.

The middle layer of the pyramid represents the technology that had to be created in order to produce a truly 'easy to use' system. The original prototype of this kind of technology was created within Xerox at the Palo Alto Research Center (PARC). This is where the bulk of the more than 200 man-year effort went in developing Lisa. Many of the refinements and contributions of Apple are in the areas of Integration and a User Interface that is easy to learn. The one button mouse and the software to allow that was key to that accomplishment. The moment the user had to think about which button to push, the system is no longer intuitive. In addition, the user no longer has to remember commands that require conscious thought, like when we drive to work the same way every day, it becomes intuitive.

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in 2

"014.PICT" 459 KB 2000-03-13 dpi: 72h x 72v pix: 2599h x 3740v

The third cornerstone is Visual Fidelity, or what you see on the screen is exactly what you get when printed. Even though it was fairly well understood how to make that happen, what is unusual about Lisa is the exceptional quality of the Dot Matrix printer for less than \$695, and being able to provide graphics from a Daisy Wheel Printer for true letter quality at \$2195!

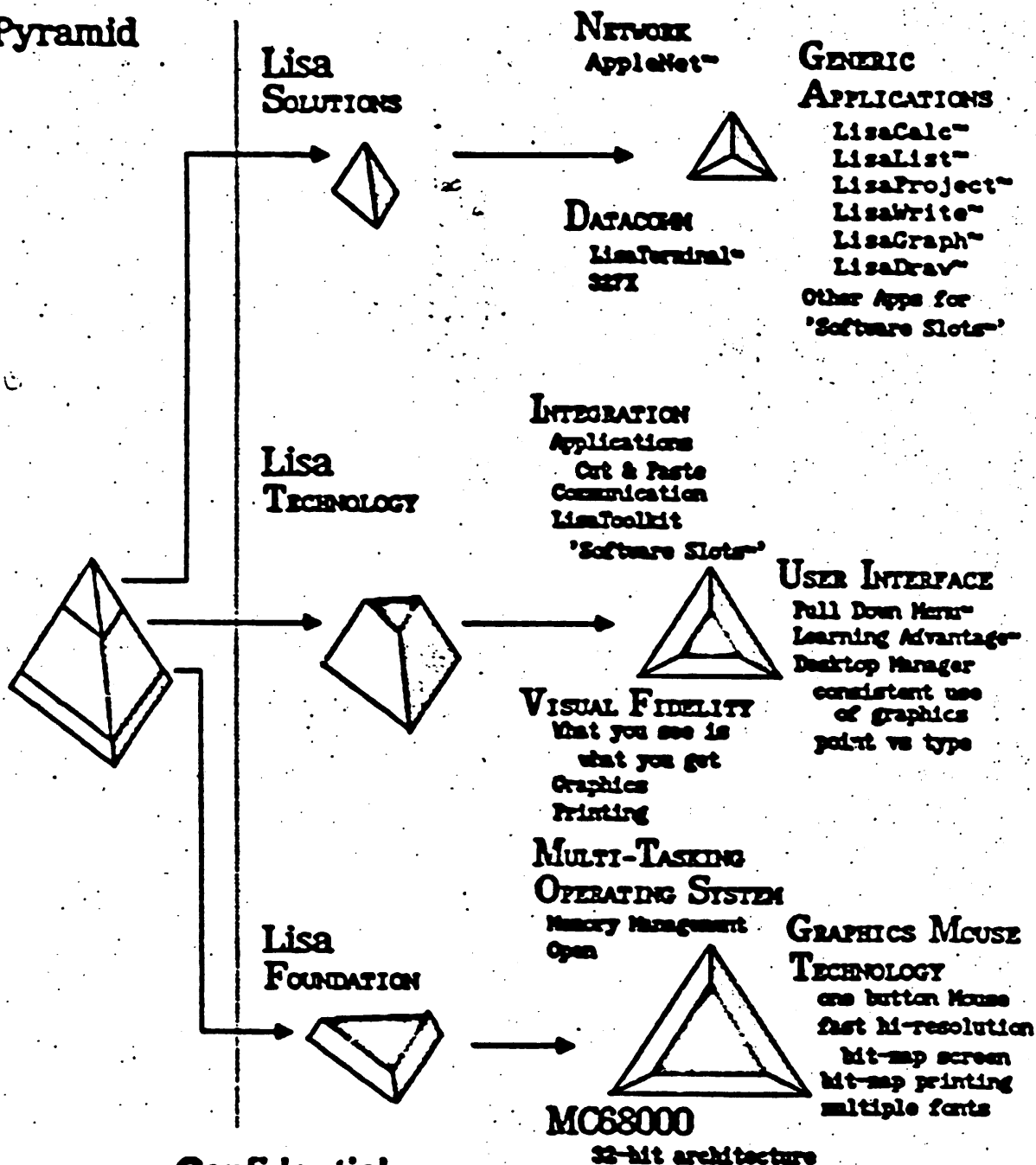
The bottom layer is the foundation for the layers above. The major design issues were all dictated by the needs of the software rather than the traditional way in which the hardware is designed and then handed to the software engineers for software conversion. The key points are that the MC68000 was the only processor that would allow us to have a strong enough foundation for the future to make this kind of investment. It is a very advanced architecture and is well suited as an applications engine. The Operating System needed to be a multi-tasking to allow multiple folders on the screen to allow for integration. The Graphics Mouse Technology is key to making the user interface possible.

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Lisa Concept Pyramid

Layers

Cornerstones



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31200116

LisaCalc -- for fast, powerful analysis

**Lisa
SOLUTIONS**



What If?



Sales Revenue by Quarter
(\$,000)

Product	Q1	Q2
Soup	31	38
Can Foods	52	57
Vegetables	25	28
Dairy Foods	20	25
Frozen Foods	13	16
Magazines	12	9
Total Revenue	\$153	\$169

**Lisa
TECHNOLOGY**



INTEGRATION

Cut & Paste data to LisaGraph

Cut & Paste data to Lisawrite

USER INTERFACE

Use Mouse to move to any part of the model

Generate formulas without touching the keyboard

VISUAL FIDELITY

Customize formats and protection for each cell

One step printing

**Lisa
FOUNDATION**



GRAPHICS MOUSE TECHNOLOGY

State-of-the-art graphics printing

Multiple typestyles for presentation-quality

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3120011

LisaCalc -- to simplify complex analysis

# G Cells:		Value:
# M Formula:		
	A	B
1		Last Quarter
2		
3	Number of Units Sold	700
4	Avg Sale Price per Unit	\$ 200
5	Avg Cost per Unit	\$ 100
6		
7	Sales Revenue	\$ 140,000
8	Cost of Goods Sold	\$ 70,000
9	Operating Expenses	\$ 30,000
10	PROFIT	\$ 40,000

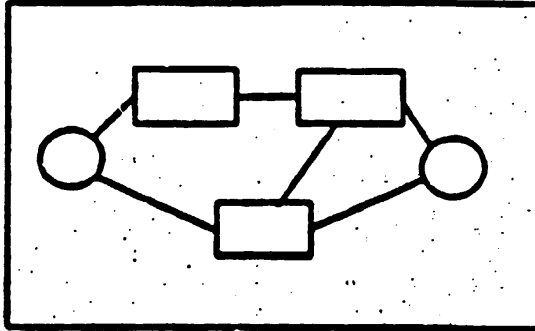
- Large capacity, Model size is 255 x 255
- Easier Model Building
- Include LisaCalc data in reports
- Precision and accuracy (IEEE floating point standard)
- Quality and easy printing

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31200

LisaProject -- for planning and tracking projects

Lisa
SOLUTIONS



Lisa
TECHNOLOGY



INTEGRATION

Cut & Paste data to LisaDraw

USER INTERFACE

Use Mouse to move to any part of the model

Create tasks and milestones by just drawing
with the Mouse

VISUAL FIDELITY

Charts graphical display project status

One step printing

Lisa
FOUNDATION



GRAPHICS MOUSE TECHNOLOGY

State-of-the-art graphics printing

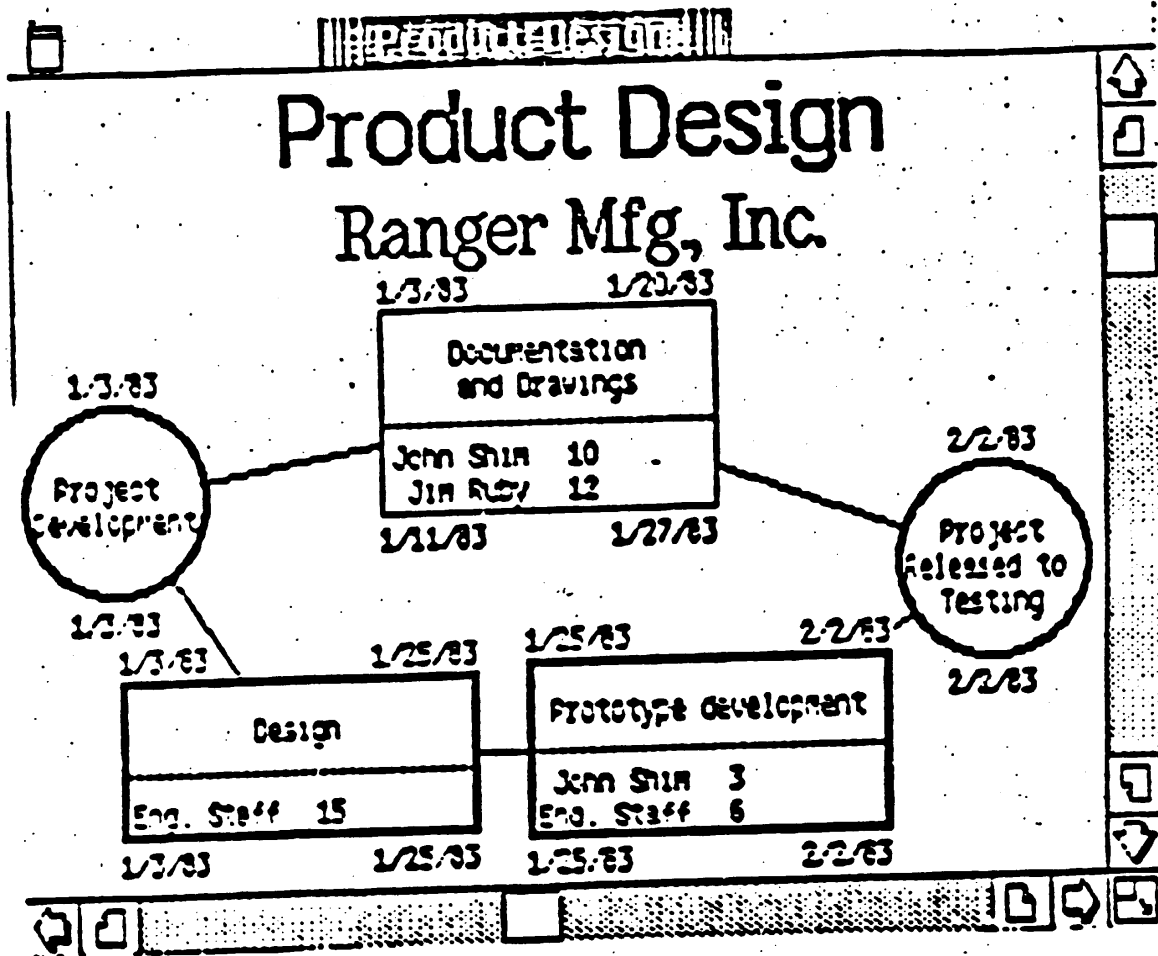
Multiple typestyles for presentation-quality

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312001

LisaProject

makes project management easy



- Presents information graphically for better understanding
- Schedule, Resource, and Task charts emphasize different aspects
- Perform "what if?" analysis instantly
- Multiple typesets for presentation-quality
- Quality and easy printing

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3120

LisaList -- for managing information

**Lisa
SOLUTIONS**

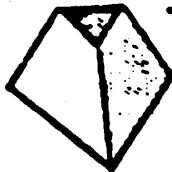


Managing Valuable
Information →

Staff Reviews

Employee Name	Dept	Last review
Eastwood, Dan	31	Feb 15, 82
Ellers, Wayne	52	Feb 20, 82
Goodman, John	25	Feb 1, 82
Gregory, Fred	20	Jan 14, 82
Hillman, Liz	13	Jan 24, 82
Madison, Mary	12	Dec 15, 82
Nichols, Jack	45	Dec 18, 82

**Lisa
TECHNOLOGY**



INTEGRATION

Same editing commands as LisaCalc
Cut & Paste data to Lisawrite

USER INTERFACE

Use Mouse and Menus to create and modify lists
Relational, table oriented interface

VISUAL FIDELITY

Automatic Formatting based on 1 of 8 datatypes
One step printing

**Lisa
FOUNDATION**



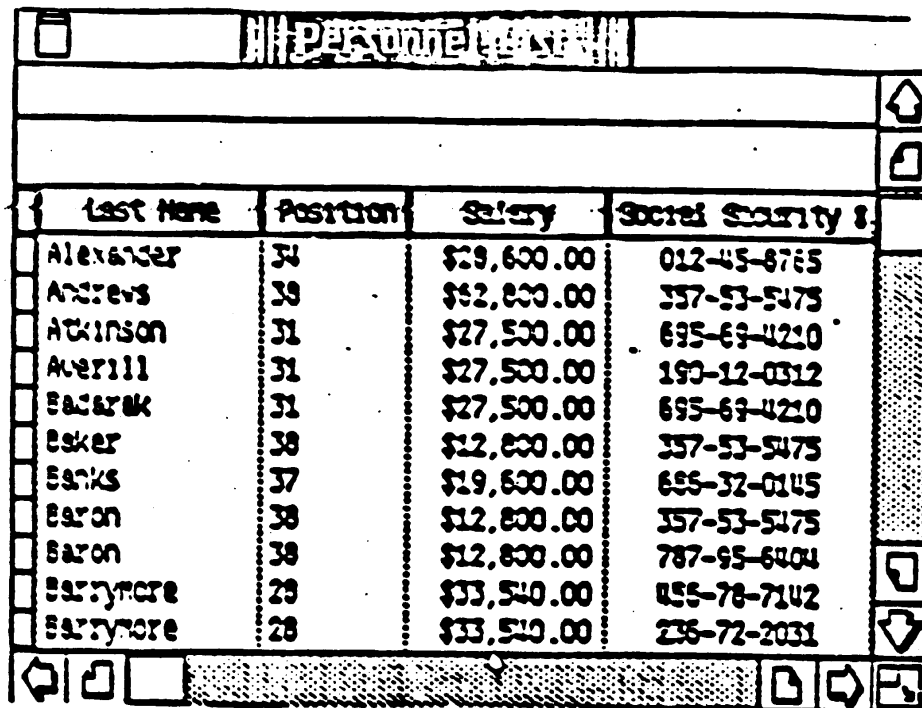
GRAPHICS MOUSE TECHNOLOGY

State-of-the-art printing
Multiple typesyles for presentation-quality

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3120012

LisaList -- to simplify the management of complex information



Last Name	Position	Salary	Social Security #
Alexander	34	\$19,600.00	012-45-8765
Andrews	38	\$12,800.00	357-53-5475
Atkinson	31	\$27,500.00	695-63-4210
Averill	31	\$27,500.00	190-12-0312
Bacharak	31	\$27,500.00	695-63-4210
Baker	38	\$12,800.00	357-53-5475
Banks	37	\$19,600.00	695-32-0145
Baron	38	\$12,800.00	357-53-5475
Baron	38	\$12,800.00	787-95-6404
Barrymore	28	\$33,540.00	455-78-7142
Barrymore	28	\$33,540.00	236-72-2031

- Add, remove or hide columns and change column order and width at anytime
- Search and Sort on any combination of columns
- 8 datatypes such as Date, or Time for automatic formatting and checking
- Up to 100 columns/list and approximately 1000 characters/row
- Maximum size list size is approximately 600K:
(e.g., 12000 rows of 50 characters each or 6000 rows of 100 characters each)

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LisaWrite — for fast, quality documents

**Lisa
Solutions**



MEMORANDUM

TO: Regional Sales Managers
FROM: Dave Clark
RE: 1982 Sales Results

Excellent year! Domestic sales
best forecast by 17%. As the
figures below show, our late
spring campaign was a great
success.

Region	Q1	Q2	Q3	Q4
East	234	245	256	310
South	89	99	123	165
West	134	159	133	190

**Lisa
Technology**



INTEGRATION

Cut & Paste whole models from LisaCalc
Cut & Paste between memos, reports

USER INTERFACE

Use mouse to move, add, or delete text quickly
All formatting commands in menus - nothing
to remember

VISUAL FIDELITY

Word-wrap, typesyles, page breaks
Print once - no more guessing

**Lisa
Foundation**



GRAPHICS MOUSE TECHNOLOGY

State-of-the-art printing
Multiple fonts for headings, subheadings, etc.
Special characters for foreign languages and
statistical applications

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LisaWrite — to prepare quality memos and reports

MEMORANDUM

TO: Regional Sales Managers
 FROM: David Clark
 RE: 1982 Sales Results

Excellent year! Domestic sales were 9% above quota — and it was quota at that. As the figures below indicate, our late spring campaign success, primarily due to your extraordinary coordination efforts. K work!

(Thousands)	Q1	Q2	Q3	Q4
East	\$ 2,460	\$ 2,497	\$ 2,534	\$ 2,572
South	820	832	845	857
Central	1,918	1,947	1,976	2,006

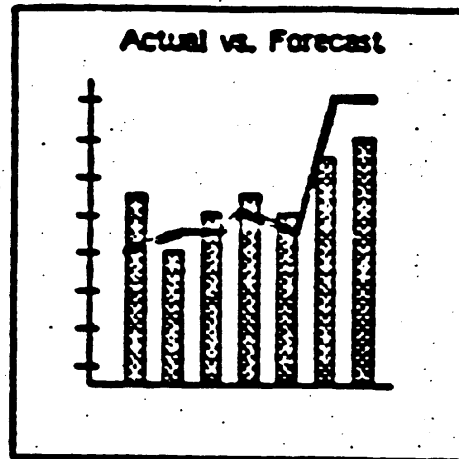
- Full editing capabilities on characters, words, paragraphs, and more
- Incredible formatting flexibility - margins, tabs, justification, etc.
- Professional quality with proportional spacing and large typesizes
- Cut & Paste tables from LisaCalc directly into reports
- Global search and replace capabilities

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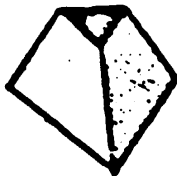
3120012

LisaGraph — for fast, quality plotting

Lisa
SOLUTIONS



Lisa
TECHNOLOGY



INTEGRATION

Cut & Paste data from LisaCalc
Cut & Paste graph to LisaDraw

USER INTERFACE

Change graph type via mouse and menus
Graph and data viewed and edited side-by-side

VISUAL FIDELITY

Titles where you see them
Graph size same on paper and screen

Lisa
FOUNDATION



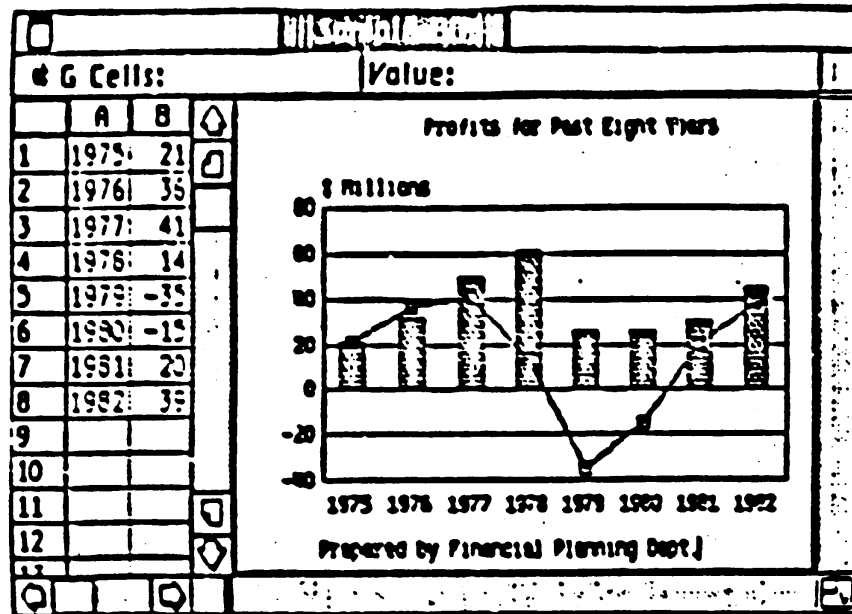
GRAPHICS MOUSE TECHNOLOGY

State-of-the-art graphics printing
Multiple fonts for presentation-quality

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LisaGraph — to simplify complex data



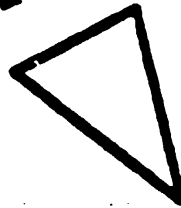
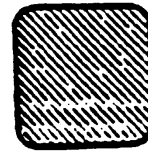
- Bar, Line, Scatter, Pie, and Mixed Bar & Line Charts
- Plot data from LisaCalc quickly and easily (3 steps)
- Instant plotting - with both data and graph visible
- Cut & paste your graph to LisaDraw for total customization
- Large typestyles for titles to give a professional appearance

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LisaDraw — for any kind of illustration

Lisa
SOLUTIONS



Lisa
TECHNOLOGY



INTEGRATION

Cut & Paste charts from LisaGraph, LisaProject
Same text editing interface as LisaWrite

USER INTERFACE

Use mouse to draw everything
Drawing aids to make everyone an expert!

VISUAL FIDELITY

Dot for dot equality between screen and paper

Lisa
FOUNDATION



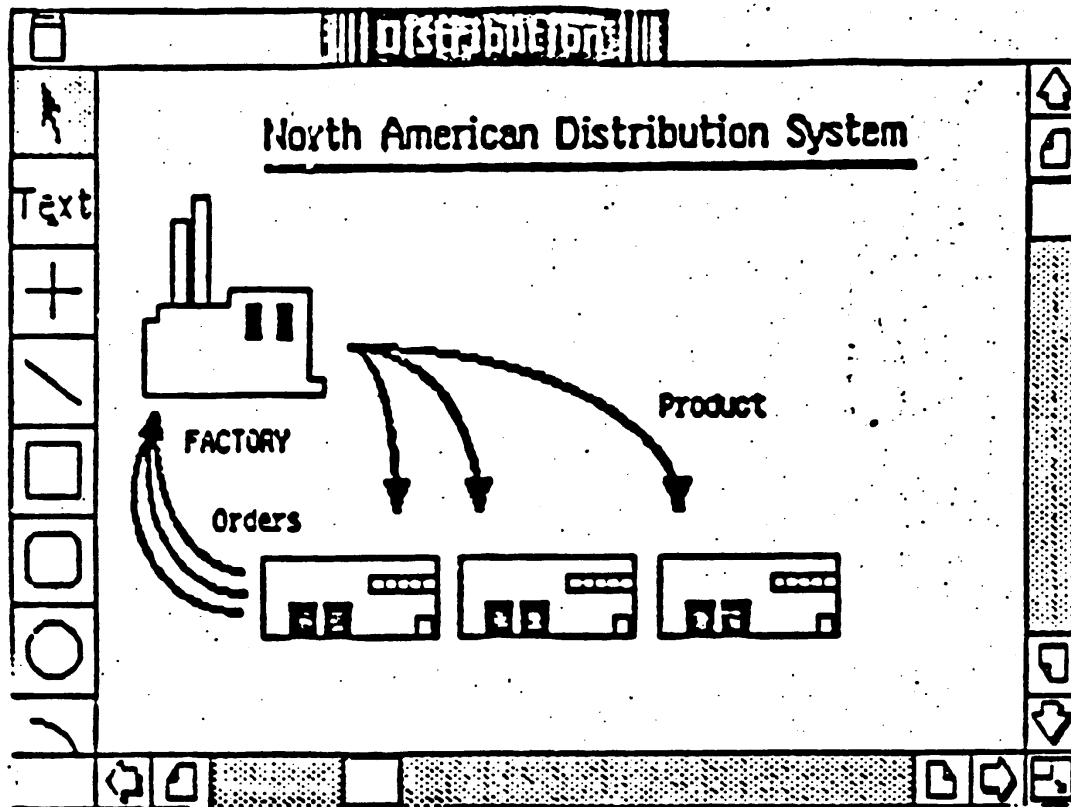
GRAPHICS MOUSE TECHNOLOGY

LisaDraw is not possible without GMT
Multiple fonts for presentation-quality
State-of-the-art graphics printing

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LisaDraw — when a picture is worth a 1000 words



- Draw lines, rectangles, circles, freehand, arcs, polygons
- Edit graphics as easily as text — move it, stretch it, shade it
- Professional quality text as well — for mixed text and graphics
- High-resolution printing for use in reports and presentations
- Rulers, grids, and other aids to get it perfect every time

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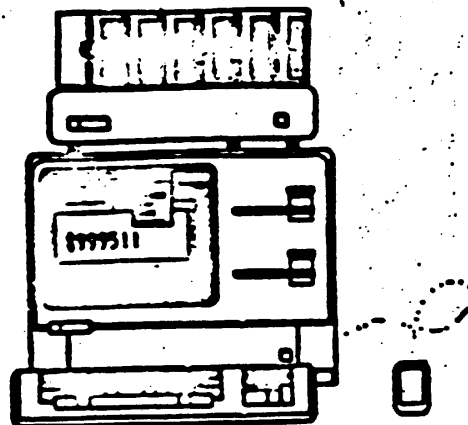
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2.2 Pricing and Profits

POSD's flagship and, in fact, sole system offering at first release will be the Lisa Office System, a bundle consisting of six integrated applications running on a powerful hardware configuration of a full 1 MB Lisa and a Profile 5MB hard disk.

To achieve the strategic objective of establishing Lisa as the system of choice in the office before competition responds and to maximize profits, the Lisa Office System's suggested retail price will be set aggressively at \$9995.



From a strategic perspective the aggressive posture enables Lisa to compete favorably against lower price-performance systems such as the IBM PC with 1-2-3 or VISI-ON. Additionally, since POSD has decided not to offer a 512KB hardware box to create a buy-in price point, trade-up sales to the Lisa Office System are ruled out. The price of \$9995 is required, therefore, to position Lisa as an attractive entry in the price sensitive office markets.

The price of \$9995 meets financial as well as strategic objectives. A marketing research study conducted by POSD found demand for Lisa among sneak preview participants to be extremely price sensitive. Over the price range considered, a 1% decrease in price would stimulate demand by 2.7%. It is logical to conclude that a high degree of price sensitivity among sneak participants implies an equal or even higher degree of price sensitivity among Lisa's broad based target market.

In conjunction with the market research study, we conducted an analysis of the fixed-variable nature of both divisional and corporate operating costs. It was found that in fiscal year 1983, 73% of division and corporate operating costs are fixed.

POSD COST STRUCTURE OPERATING EXPENSE SUMMARY Q3 & Q4 FY 83

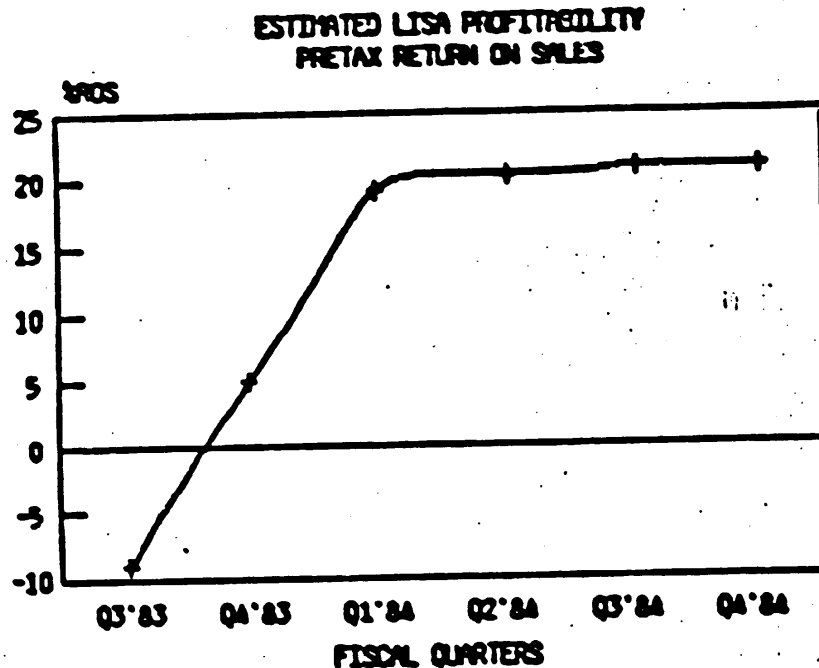
ESTIMATED POSD REVENUE		\$52.8 MILLION	
	TOTAL	FIXED (91)	VARIABLE (91)
OTHER COS	.22	—	.22
CORPORATE OPERATING EXPENSES	16.88	11.80 (70)	5.08 (30)
POSD OPERATING EXPENSES	11.92	9.51 (79)	2.41 (20)
TOTAL EXPENSES	29.02	21.31 (73)	7.71 (27)

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The combination of price sensitive demand and a high proportion of fixed costs, argues convincingly for aggressive pricing. The price of \$9995, just below the psychological threshold price point of \$10,000, maximizes POSO's return on investment. A higher price would result in a drastic decline in demand, thus raising unit costs and lowering profitability. A lower price, on the other hand, would not stimulate demand sufficiently to offset the lower price realization.

As the following chart illustrates, a price of \$9995 will yield a pretax return on sales of 20% by fiscal year 1984. Return on sales performance improves steadily after the first six months of shipment as the Lisa Office System with an external Profile is replaced by the Lisa "1.5" with an integral winchester disk.



The improvements in pretax ROS can also be attributed to a steady decline in standard costs as a function of both volume and time as well as a spreading of operating costs over a growing volume of sales.

Attachment A includes costs, sales mix assumptions and discounts by channel.

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2.3 Third Party Software Plan

Lisa's potential as a target machine for Value Added Resellers (VARs), 3rd Party Software Houses, and Volume End Users (VEUs) is tremendous. Each of opportunities as large as the office market, as described in the POS VAR Business Plan (3/19/82).

Prior to Lisa's introduction, PCS will have a limited number of machines and support capabilities for outside organizations. We will use these resources to "seed" machines in strategically important areas. The extent of this program will be decided after POS determines what we can offer outside firms in the way of development environments (Monitor, Lisa OS, UNIX, R/PW) as well as Lisa software components (Application Window, OEM Tool Kit).

The distinction between VARs, 3rd Party Software, and VEUs is an important one. VARs are those organizations who buy machines from Apple, add product value in software and/or hardware, and then resell the machines. Typically they address a market that complements our markets. Prime VAR application areas for Lisa include Engineering Workstations, CAD/CAM, Programmer Workstations, Typesetting Systems, Decision Support Systems, and Small Business Systems.

3rd Party Software Houses add product value but do not sell machines. Typically they either sell their product to Apple who in turn markets it, or they sell their product directly into existing channels. Early potential seeds in this area would be for key system software (BASIC, CRED, Datacom, Unix, R/PW) or for key applications to complement our product line (PERT, Small Business Software, relational Data Bases, Electronic Mail, advanced financial packages).

VEUs are customers who both buy in substantial quantity and who add their own software for internal use. Examples are banks who write software for branch offices, accounting firms who write their own auditing software, and engineering companies that write their internal applications.

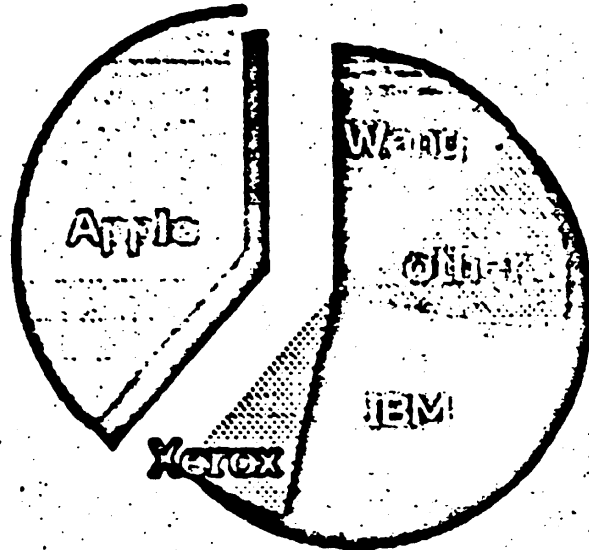
In each of these areas, the key will be leverage. Given limited resources, we will pick those situations which will provide the greatest payoff in the long term.

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3. Marketing Strategy

3.1 Market Segment Analysis

In the U.S. alone, there are than 4 million secretaries, 11 million professionals. The productivity of these individuals has become a major concern: \$300 billion was spent in 1980 on white collar wages and benefits in the U.S. alone. As "the Economist" described in its December 27, 1980 issue: "Booz Allen (the noted management consulting firm) believes office productivity in America probably reached its peak in 1978 and has been falling since." Apple has a major opportunity to increase the effectiveness of typical office workers through personal office systems.



Although data processing has been around for decades and display word processors have been with us since 1971, the market for personal office systems is relatively untapped. The total installed base of standalone word processors in the U.S. is but a few hundred thousand, and the Yankee Group research firm claims that in the U.S. there is only one computer terminal for every 48 employees (in Europe it is less than one per 100).

The so-called "Office of the Future" firms have also succeeded in alienating a large number of office workers. The National Association of Office Workers' report, "Race Against Time: Automation of the Office" (April 1979) claimed that office automation (i.e., WP) would turn offices into assembly lines--leading to degraded, deskilled, and devalued jobs, unemployment, and occupational stress and danger. The report claimed that IBM and other vendors encourage customers to rearrange their offices, instituting typing pools and other "innovations," primarily because the equipment has been considered too expensive for a typical secretary. As "the Economist" reports:

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"None of the electronic office equipment manufacturers has yet succeeded in making the devices sufficiently 'friendly' so that typical office workers can use them easily and well . . . Much of the electronic office machinery coming on the market requires users to be familiar with special codes and certain computer techniques . . . Though great strides have indeed been made to churn out more paper, few equipment suppliers have begun to think about trying to improve the quality of the information printed on it . . ."

To date, vendors who bill themselves as selling "office automation" or "office systems" are quickly buried by the excessive demands and expectations of Fortune 500 firms, who are clearly the Venus Flytraps of the potential customer base. No single vendor is even close to offering the total office system that the large firms have come to believe they demand. Meanwhile, by virtue of NOT being billed as an "office system," the personal computer can be seen as a natural and beneficial experience for the individual professional.

The FCC marketing strategy has always called for a mass marketing approach to a broad office worker audience. However, while the strategy calls for a very "horizontal sell" to the widest audience possible, certain filters are workable in qualifying prospects as good leads.

It is estimated that there are 32 million office workers in the United States:

- 1 million typists
- 4 million secretaries
- 11 million managers/supervisors
- 16 million professional/technical

The worldwide numbers are at least double those of the U.S., although there is a relatively higher proportion of small firms.

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Lisa is positioned as a solution for "all" office workers, not just one segment such as secretaries or professionals. It is expected that all individuals in a business unit, such as a department, will need the same capabilities to share files, etc. Lisa is simple enough so that "first time" computer users are not intimidated, but powerful enough so that a computer literate individual does not feel harpered. Virtually all users may become sophisticated at least on some applications rapidly.

An important strategy element for us will be selling to those individual managers, professionals, and secretaries in an organization who are perceived as the leaders (in either personal power or position). As these individuals promote Lisa internally, others will surely demand the product. This phenomenon is referred to as "cording out of the woodwork" syndrome by the Office Automation Manager at Lincoln National Life Insurance Company. Once word spreads about an exciting product, people everywhere begin demanding one and looking for means to justify its acquisition. This phenomenon is becoming routine for Apple IIs and IIIs in businesses, and Lisa should also benefit from it.

As soon as small business software is available, Lisa is perfectly positioned to be a major force in the small business market. Reasons for this power include our bottom-up sales dominance, attractiveness as a standalone system (and not as part of a large one), and the shorter selling cycles in the small firms.

All indications point to Lisa's being perfectly positioned for the office market: speakers in seminars, writers in the trade press, and corporate individuals who have seen Lisa specify that a good system must have word processing, graphics, Visicalc-type capabilities, and data bases. And they must be integrated! Only Lisa currently fulfills these requirements.

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Lisa Target Market

Any Knowledge Worker or Support Staff Member who considers Analysis or Information Management an integral part of his/her job. _____

The Office Environment may be in a large company, a small company, or a home.

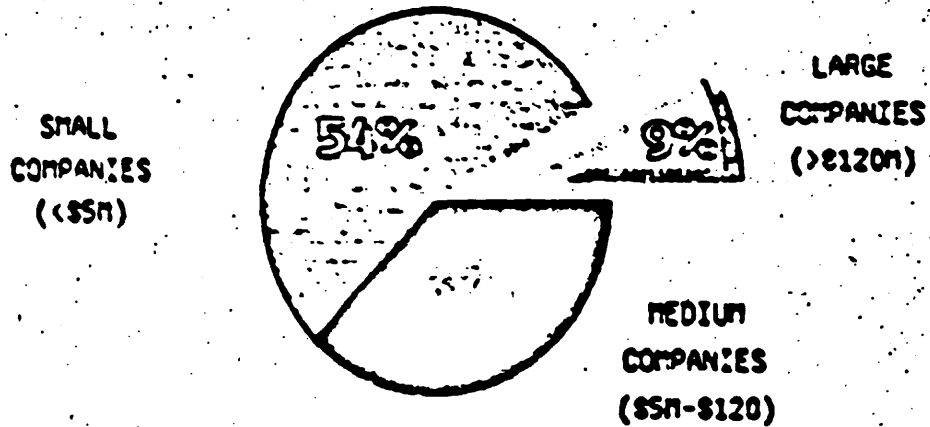
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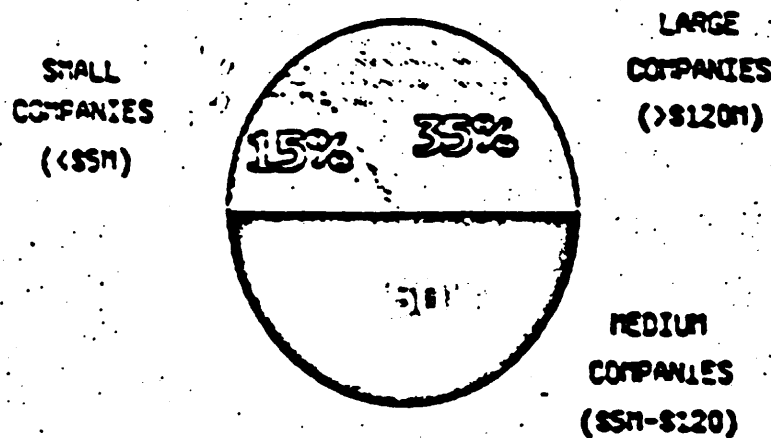
Lisa Market Size (U.S.)

Number of Knowledge Workers



32.4 Million Managers and Professionals

Anticipated Distribution of Lisa Sales (12 Months)



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3.2 Lisa Positioning

Apple Computer, the recognized leader in the personal computer industry, has pioneered quality, innovative, affordable, and usable computers for the individual. In the office, the emphasis has been on improving the way individual professionals make decisions, analyze and manage information, and communicate with others more effectively.

Apple's newest personal computer for the office, Lisa, is a revolutionary management decision support tool. State-of-the-art hardware and revolutionary software, which represents a \$50M and 200 person-year investment, offer an unparalleled user interface and integration of fundamental management applications. Lisa Technology™, built on extensive use of graphics, consistent user interface, and a pointing device (called a "mouse") emulates the way an individual works in the office. The integration of data between applications such as word processing, data management, spreadsheet, graphics, project scheduling, communications, and additional tools that will be supplied by Apple and independent software vendors set the standard for new office systems. Lisa is the first in a new generation of personal computers from Apple for the office.

The Apple IIe, with its new features and capabilities, enhances the Apple II's position as the most cost-effective general purpose personal computer in the office.

The Apple III, the mid-range of Apple's product line, is an extension of the Apple IIe in capacity, expandability, color graphics, and development tools. The Apple III is particularly suited for small business applications.

Data communications and local area networks are fundamental for individuals in the office to create, share, and use information. Apple will introduce data communication products and AppleNet, a local area network product, during 1983.

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3.3 Introduction Plan

Creating the Personal Office System market poses some major challenges for Apple. An overview of the introduction strategy for this market is provided below, followed by more details in the following sections.

ANNOUNCEMENT/PUBLIC RELATIONS

A concurrent announcement of Lisa and IIe will be made at the Stockholder's Meeting on January 19, 1983. Shipments of Lisa will begin in late spring 1983. Lisa will be Apple's first major new product line announcement since the Apple III, so we want to make a big splash with public relations and advertising.

Since December 1982, the most prestigious trade and business publications have visited POS Division in preparation for articles/cover stories. Covers are planned for *Byte*, *Personal Computing*, *Popular Computing* and *Computer Dealer*, and possibly one or more of the major business publications. Major industry consultants were brought in for Sneaks in December; others will be given priority at the OAC Trade Show in Philadelphia in February. *Seybold Report* will do an entire special issue in February on Lisa.

The Apple announcement ad, "Evolution/Revolution" will run in the *Wall Street Journal* 1/21 and 1/24.

SALES CHANNELS

At announcement, two channels of distribution will sell Lisa- a subset of Apple's existing dealer base and Apple National Account Excs.

Personal Office System Dealer

Sneaks for approximately 150 of the top Apple dealers were held in Cupertino in November. From this group, approximately 135 dealers (to be known as Personal Office System Dealers) will be selected as "Lisa Information Center" dealers to be in place at announcement time.

Apple is issuing a new Dealer Master Agreement around March 1, 1983, to be signed by April 1; the Lisa product line will be an addendum to this contract. As soon as the "Information Center" dealers sign the Master Agreement with the Lisa addendum, they will become authorized Personal Office System Dealers. Each of these dealers must also submit a business plan to the regional managers by January 21, 1983.

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National Account Execs

Approximately 60 National Account Executives will be in place at introduction; they will market directly to the Fortune 1000 accounts.

SNEAK PREVIEWS

Approximately 70 large companies, 15 consultants, and members of the key trade and business press have seen Sneak previews of Lisa. A special room was built in the POS Division to accommodate these presentations, and the materials used in these presentations form the basis of the presentation slides being provided to the field. The Sneaks proved extremely successful and provided valuable feedback from customers with regard to the product itself, position, service and support. See Attachment K for a list of all Sneak attendees.

SEMINARS

Teams from POS/Sales will visit 16 cities in the U.S. and 3 in Canada March 7 through April 7 to present Lisa seminars. The purpose of this program is to introduce Lisa to as many accounts as possible in this timeframe and to provide instruction to the field on how to give a Lisa seminar.

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3.4 MARKETING COMMUNICATIONS

SNEAK PREVIEWS

Sneak Previews addressed the need to communicate the Lisa strategy to selected larger customers well before introduction. The Sneaks began in late May and will continue until announcement on January 19. After that, headquarters Sales will take over corporate visits. Approximately 70 companies attended the previews; sometimes they were scheduled for every day in a week. In addition, the presentation skills of the members of the POS Division were honed, and the materials developed for these presentations will be sent to the field via slides for their own presentations to accounts/seminars.

PUBLIC RELATIONS

Public Relations will manage the release of information in order to properly position Lisa. Two groups of leading industry consultants were given Sneak previews; these individuals are influential in providing information to trade and business publications, as well as speaking at conferences and making product recommendations to the marketplace.

The following individuals attended Sneaks:

Consultants

John Murphy, Advanced Office Concepts (Amy Wohl's company)

Esther Dyson, Rosen Research

Joe Ehardt, Seybold Reports

Jonathan Seybold, Seybold Reports

Richard Dalton, Open Systems

Portia Isaacson, Future Computing

Ben Visseren and Kim Lin, Dataquest

Ben Rosen, Rosen Reports

Nolly Upton, International Data Corporation

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Publications

Electronics Magazine
Computer Dealer
Wall Street Journal
Infoworld
Newsweek
Business Week
Byte
Popular Computing
Personal Computing
Chicago Tribune
Peninsula Times Tribune
San Francisco Examiner

In addition, Steve Jobs, John Couch, and Paul Dali will make a press tour January 10 & 11 to visit Forbes, Fortune, Wall Street Journal, New York Times, Boston Globe, Business Week, Newsweek and Time for articles to break shortly after announcement.

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MERCHANDISING

The challenge of merchandising will be to "put Lisa's sizzle on paper." And on video. And on demo.

The merchandising must, like Lisa, be integrated. Brochures, Data Sheets, in-store promotions, software packaging and other collateral material will appear as a family (for example, like Visicorp material). Like Lisa, the materials will be graphic and experiential.

Not only will the "look" be integrated, but also the message. To emphasize the Lisa positioning, the message will focus on human potential, not productivity or office automation.

Demos and video will bring the experience of Lisa closer to the user. To that end, demos will not be limited to simply viewing; they will allow the user to experience Lisa by using it to produce results.

ADVERTISING

Lisa advertising will be limited to short-lead time media (newspaper and radio) at announcement. PR is expected to carry much of the early marketing communications load. Major advertising will start in March to coincide with ship date. Major advertising would also be used to promote the Roadshow.

The advertising message will focus on "human potential," through better decisions, higher work quality, and better communication of information.

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SEMINARS

Professional seminars are expected to be the major vehicle for presenting Lisa to accounts. In order to introduce Lisa quickly after introduction to major accounts, as well as train the field in giving professional seminars, POS and Sales will send teams to 16 U.S. cities and 3 Canadian cities in March to present the first round of Lisa seminars. (See attachments for a list of the cities.) Each team will be in each city two days:

Day 1

8 - 10 a.m. Seminar to local Personal Office System dealers.
(see attachment for agenda). This seminar will "show by example" how to give a Lisa presentation. It will be exactly the same presentation as given to Apple National Account Rep customers later in the day.

1 - 3 p.m. Seminar to Apple National Account Rep customers.

3:30 - 5:30 Seminar to Apple National Account Rep customers.

Day 2

9 - 12 Visit National Account Rep customer accounts

1 - 5 Visit local Personal Office System dealers

A comprehensive seminar package will be sent to the field in early March.

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TRADE SHOWS

Both trade shows and seminars are believed to be the most effective method of introducing Lisa to customers. Trade shows should provide greater opportunity to use Lisa. In addition to the booth space, a suite will also be obtained for presentations to selected customers attending the show(s). The first show Lisa will appear is a small regional show, Office Automation Expo, in San Francisco. The first major show after announcement is the AFIPS Office Automation Show in Philadelphia. 50 hands-on machines will be set up at the Hilton Hotel (next to the Convention Center).

1/25/82	Infosystems Office Automation Expo, San Francisco
2/21/83	AFIPS Office Automation Conference, Philadelphia
5/16/83	MCC, Anaheim
6/83	IAP Syntopicon, San Francisco

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3.5 Competitive Analysis

Stiff competition will come from IBM, Xerox, Wang, Datapoint, and DEC. These firms all have (or will have) versatile workstation products that can be produced in high volumes. In addition they all draw upon substantial sales, service, and financial resources.

With the IBM 5150, a solid personal computer, IBM is rapidly moving to secure the personal computing business of its business clientele. However, as Ben Rosen and others have pointed out, the 5150 offers comparatively little in the way of innovation. Nevertheless, even though it cannot compare to Lisa technically, it is selling extremely well for now--and without a strong competitive response from Apple until Lisa debuts. IBM is clearly attempting to lock-up corporate customers who want personal computing. IBM has had the resources to do Lisa-ish projects fifty times over. Their "wait and see" tradition probably indicates that Lisa will give Apple a product capability edge throughout most of 1984.

Xerox has a strong brand image in the office market, excellent relations with Fortune 500-sized firms, 8000 salespeople, a large field sales organization, and an image of technical leadership during its frontrunning Star and Ethernet announcements. In addition, Xerox is beginning to take Apple head-on by selling the new 820 through computer stores. However, the 820 has done poorly and now appears to be losing dealer "share of mind." In addition, Ethernet's survivability as a standard has repeatedly been challenged, and the company to date has only 700 sites where customers have installed Stars. A final nail in the coffin is the high price of a useful Xerox network, since the products do not work well as standalone systems like Lisa: the average system price of the 70 Star installations is \$270,000. Since Xerox lacks a low-cost, Star-like machine that is genuinely standalone, Star should help educate the market and contribute to Lisa sales as customers recognize that Lisa is the affordable approach.

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In addition to Wang, Datapoint, DEC, and the other major office workstation vendors, a plethora of 16-bit CPU, bitmapped display office workstation products have leapt into the fray in the last year. The battle is shaping up between 80386-family machines and those using the Motorola MC68000. Convergent Technologies (80386) has already established the early lead among OEM suppliers by signing agreements with Savin, Rolm, Thomson-CSF, Burroughs, and NCR. IBM has helped to legitimize Convergent by choosing the 80386 and 80387 for the displaywriter and 5150.

Time is of the essence. The office workstation market right now is somewhat like the personal computer market in 1977: poised for tremendous growth that Apple can capture and gain a strong foothold within - if we can move quickly to introduce our product into the market while the window is open.

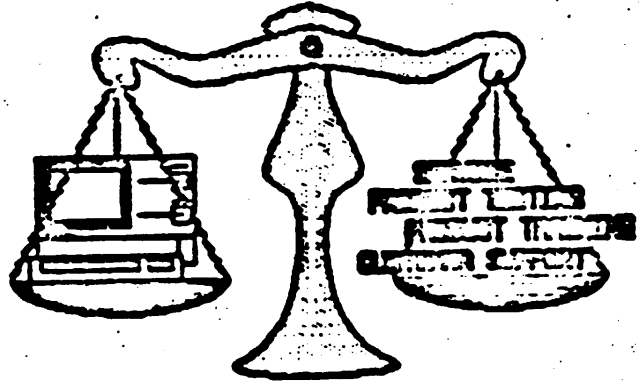
Complete competitive analysis by company, are included as Attachment D.

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4 Support Strategy

4.1 Product Testing

Product testing verifies that the product meets specifications: functionality, reliability, ease of use. In addition, it verifies that the marketing support system--manuals, hotline and service--is also functional and reliable. Towards these ends, we have instituted five related tests:



1. User Testing

These tests assure that the product is easy to use and that the manuals, computer-assisted-instruction, and other instructional devices indeed help the user become skillful in the shortest time possible. POS Training supports the rest of POS in setting up and interpreting the results of user tests.

2. Software Testing

These tests assure that the software conforms to specifications and is robust enough to perform satisfactorily under adverse conditions and configurations. NPR will perform conformance tests, performance measurements and system integration tests.

3. Hardware Testing

Operations have performed design maturity tests to assure that the hardware can perform under physical stress. In addition, they will test for reliability, performing mean Time Between Failures tests.

4. Alpha Testing

This test, which occurs after NPR has finished its battery of tests, is a trial run of the software and training at several in-house sites unconnected with the development of Lisa. Sites will be monitored for learning rate and bugs. Product Support will answer the hotline, but the Distribution, Service and Support Division, responsible for the "real" customer hotline, will use Alpha to learn about the kinds and quantities of calls we can expect at first release. Test sites will be supported by POS.

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5. Beta Testing (Early Release Program)

Beta is a full dress rehearsal of the product and its support system. Approximately 125 Lisas will be placed in customers' businesses. They will learn to use Lisa in the same way the majority of our end-users will. They will be supported by our 800 hotline, and their machines will be serviced by RCA.

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4.2 Training

Training's objective is to provide knowledge about the product efficiently and cost-effectively to all of Lisa's major users and supporters. Training has 11 major audiences: end users, Apple sales people, manufacturers' reps sales, dealer sales, Customer Support Specialists (who answer the hotline), Sales Support Analysts, Area/Regional trainers, trainers in manufacturers' reps, trainers in large accounts, Technical Support Specialists, and value-added retailers. Every group but the last will receive its introduction to Lisa through a combination of Computer Assisted Instruction and print. This orientation will allow all users to become minimally competent on an application in thirty minutes. Training materials will be thoroughly user-tested to assure quick and lasting learning.

Wrapped around this introduction will be other materials to help each group do its own special job. While POS Training has responsibility for the orientation materials, other groups will often provide information needed for the wrap-around materials.

Dealers will not be certified to sell Lisa unless they maintain trained salespeople and a trained technician on staff. Dealers will continue to be supported in their technical questions by trained Technical Support Specialists in the regional support offices.

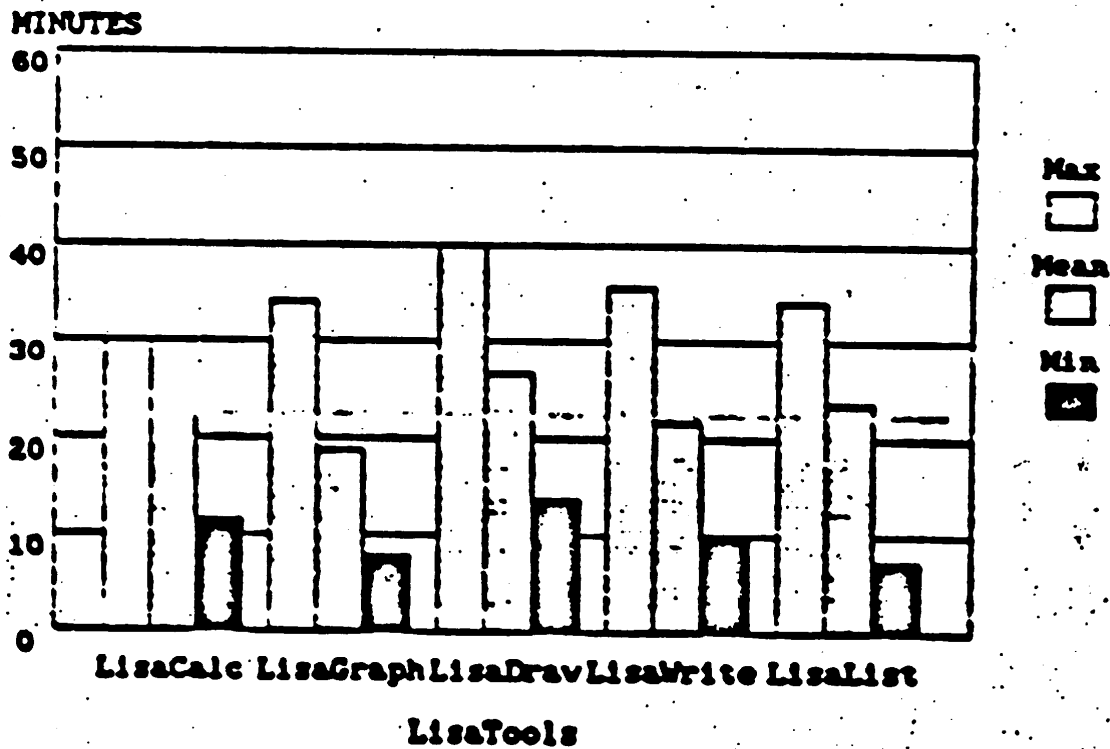
POS Product Support is responsible for the training of value-added retailers. POS Training will help Product Support develop training materials for the third party vendors.

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Lisa helps you to be productive...

easily and quickly

Completion times for 'Getting Started'



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4.3 Service

The Lisa Service program addresses the special requirements of the office market. The goal is to provide an easily managed range of service options that cover the demands of a variety of Lisa customers. The options are:

1. On Site Service Contracts

RCA will provide 4-hour response to on-site service calls under a yearly service contract. RCA will be dispatched by the Telephone Support group.

2. Carry-In Service

The customer will bring the defective product to an authorized Level 1 dealer for repair. The standard warranty will cover parts and labor for 90 days. Those purchasing AppleCare dealer service contracts may have their Lisas serviced while they wait.

3. Factory Authorized Level 1 and 2

Customers may elect to have their own repair facility on-site. Level 1 training will be bundled with the cost of the spares.

Value Added Retailers and Original Equipment Manufacturers may choose which service program best fits their needs from the plans above.

A chart of the available hardware maintenance and software support options is included as Attachment L.

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4.4 Customer Support

The Lisa customer requires prompt, professional support. On-site support, however, is contrary to PDS's approach. We choose instead to offer high-quality, cost-effective, support over the telephone. A centralized customer telephone support facility—either at corporate or in a local regional office—will be necessary in Fiscal Year 1983, but our eventual plan is to have support lines in all the regions, accessed through a single, widely publicized 800 number.

The support lines will be staffed by intelligent, empathetic people, who are good at solving problems and at teaching over the telephone. Most Customer Support Specialists will not be technical whizzes, though every support line center will be staffed with at least one technically competent professional. At least 90 days of the support line service will be bundled with Lisa. After the first ninety days customers can buy access to the support lines by purchasing coupons that allow them one answer to one question.

Users may report bugs to support line operations. They will not, of course, be charged for bug reports. If the bug is known, they will be given a workaround or a restriction. If it is not known, we will verify it and call back with a workaround.

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Comprehensive Customer Support Program

Software Maintenance and Support

- **Answers to questions about the applications**
- **Answers to questions about languages**
- **Software and manual updates**
- **Response to bug reports**

Hardware Maintenance and Support (Joint Apple and RCA Program)

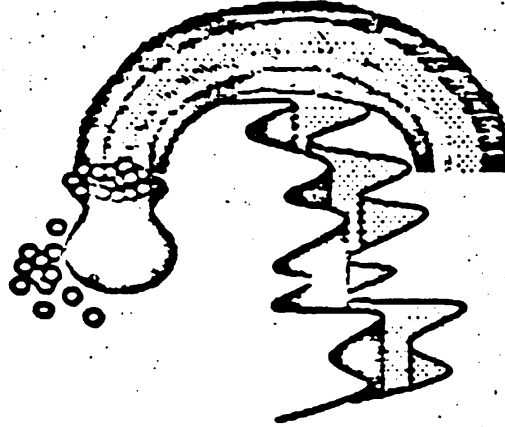
- **Installation**
- **On-site maintenance (4-hour response)**
- **AppleCare carry-in maintenance**

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5. Risks and Open Issues

Most of the significant open issues presented in the first PIP have been resolved due to significant contributions and hard work by several groups at Apple.



The key risk at this point is, as with any project of this size, whether the software will be complete on the target date. The indicators are that it will.

For the last several months we have been tracking the software development efforts closely. The difference between the target date and actual completion of a milestone has been converging each time. Measurable results are also indicated by the rate of bugs reported versus bugs fixed. Thus, we are confident that we can maintain the schedule. The entire POS division is committed to delivery of a quality product. We are also all aware that the market window is also closing, so a total commitment is required to make it happen.

One technical risk which has been resolved is that of fonts and printing. Product Marketing and the Software Print Shop have done an excellent job of getting printing on schedule for first release. In addition, they have provided very innovative capabilities, such as high-quality graphics on the LOP.

We have also identified resources to create software to duplicate and verify our production disks.

KEY BUSINESS RISKS

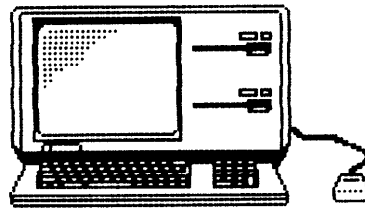
1. We are limited in the amount and timing of software we can offer to outside developers (OEMs, VARs, third party). First release Lisa office applications have consumed most of our engineering resources.

We face a risk in introducing Lisa with almost no software other than what we are providing. We know that this was a significant problem in the Apple III introduction. This issue has been discussed in the VAR Business Plan (3/25/82) and we are now doing our best to play catch-up in seeding third-party houses, as well as building software development tools.

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2. We may confuse the customer about product line compatibility between Lisa and Mac.
3. An important issue is deciding how many field and corporate "services" we can and should provide for key customers. These include such activities as the Font Center, datacore/network installation and support, pre- and post-sale and user applications support, and specialized requests.
4. Competition. The later we are to market, the more we suffer from insufficient functionality and the lack of a complete system solution, e.g., that provided by full network/datacore capability, total integration.
5. Above all, this introduction is a massive task that will require the full attention of many of the best people and resources of Apple.



Apple Lisa Personal Computer
1983 - 1985

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